

**psycho
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division 28
newsletter**

NEWSLETTER REVIVED

During the 1972 business meeting in Honolulu, members voted to revive the Division 28 Newsletter with Travis Thompson acting as editor.

Though many profession-wide matters are dealt with in the APA Monitor, there remains the need for a forum for information dissemination and exchange for psychologists with specific interests in psychopharmacology. This issue of the Psychopharmacology Newsletter presents some of the "special interest" information not effectively provided by other publications. Suggestions for other kinds of columns or areas to be covered would be appreciated. The present plan is for quarterly publication of the Newsletter.

JUST IN

In a memo dated February 15, 1973, the Director of the National Institute of Mental Health announced "The President's recently revised budget for the current fiscal year (FY 1973) and the proposed budget for FY 1973 reduced the level of funds available for support of training grant, research fellowship, and research scientist development activities of the National Institute of Mental Health...No new special direct support for graduate students and postgraduates in research and other graduate training is provided in the President's Budgets...The amount of funds available for FY 1973 and proposed for FY 1974 will permit awards only for existing commitments to noncompeting (Type 5) continuation grants in the area of research training (biological, social, and psychological sciences, research fellowships, and the research scientist development program) and in the categorical graduate disciplines (psychiatry, psychology, social work, psychiatric nursing)... The policy intent...is to phase out direct long-term Federal Support of research training and training in the categorical professional disciplines...It follows from the above

that in FY 1973 and thereafter funds will not be available for support of new (Type 1), competing renewal (Type 2), or supplemental (Type 3) applications in the indicated program areas (1 and 2 above)."

On the passing of a major contributor to a scientific field, it is customary to make a few remarks on his or her life and the meaning of their passing. It is my unhappy task to pen a few phrases on the death of support by the Federal Government of research in psychopharmacology. Psychopharmacology was born in the 1950's of mixed stock, partly clinical research with the tranquilizer, chlorpromazine, and partly the early laboratory research in behavioral pharmacology. While clinical psychopharmacology made limited advances in the intervening two decades, laboratory behavioral pharmacology has become a relatively sophisticated discipline. In its adolescence, psychopharmacology had begun to develop the necessary strength to begin to make contributions to the understanding of drug actions on human behavior. It is therefore a particular tragedy that research in psychopharmacology has been struck down at the prime of its productive potential, by the fiat of the Federal Administration. It is all the more cause for concern that not only is the Administration in the process of putting an end to research in psychopharmacology (aside from limited clinical studies in the area of drug abuse), but that the Congress has thus far been ineffective in resuscitating the dying body. We would like to believe that the Congress would at least be consulted concerning the future of research and training in such an important area as drugs and behavior. Perhaps not. Perhaps the Congress and the electorate will only discover some years from now that there have been no advances in the study of drug actions as they relate to significant human problems. Perhaps then it will be deemed that the time is right to act. Perhaps.

T. Thompson, Editor.

WHAT'S HAPPENING AT...

Harvard

We have been watching with interest the cardiovascular program developing at Harvard in the past few years. The following summary was submitted by Roger Kelleher:

"Experiments have been conducted on the cardiovascular effects of imposing on monkeys a regularly recurring schedule of reinforcement. Systemic mean arterial blood pressure and heart rate were measured in squirrel monkeys trained under fixed-ratio schedules (response requirement of 10, 30, or 100 responses) to press a key that turned off a light associated with the occasional delivery of electric shocks. Episodic increases in blood pressure and heart rate commonly were associated with schedule-controlled key-pressing behavior. After several months of daily two hour sessions under such fixed-ratio schedules, mean arterial blood pressure was elevated markedly both during experimental sessions and throughout the remainder of each day. The blood pressure of monkeys which were not trained to press the key was not elevated. These results suggest that behavioral hypertension in the squirrel monkey develops with a course similar to that reported for many human patients with essential hypertension; an initial period marked by transient episodes of hypertension is followed eventually by sustained hypertension.

"Systematic observations on changes in mean arterial blood pressure and heart rate have been made after injections of drugs that have relatively selective effects on the cardiovascular system. Phentolamine, an alpha-adrenergic antagonist, decreased blood pressure and increased heart rate. The episodic increase in blood pressure associated with responding persisted even when phentolamine markedly lowered

blood pressure. There was little change in blood pressure after propranolol, a beta-adrenergic antagonist, which markedly decreased heart rate or after methylatropine, a cholinergic antagonist, which increased heart rate. After either drug, the episodic increases in blood pressure persisted. None of these drugs consistently affected key-pressing behavior over the range of doses that markedly affected blood pressure or heart rate. Atropine, a cholinergic antagonist which readily penetrates the CNS, had cardiovascular effects similar to those of methylatropine, but it decreased rates of key pressing. Combinations of propranolol and methylatropine had effects similar to propranolol alone. These findings suggest that in the squirrel monkey a relatively high degree of sympathetic nervous system tone persists during behavioral experiments. Perhaps it is because of this high degree of tone of its sympathetic nervous system that behaviorally induced hypertension can be developed and sustained in the squirrel monkey. Further behavioral and pharmacological experiments are being conducted to elucidate the factors involved in the genesis of behavioral hypertension.

"This work is being conducted by J. A. Herd, W. H. Morse, R. T. Kelleher, Susan A. Grose, and Rose D. Cordes of the Laboratory of Psychobiology, Department of Psychiatry and the Department of Physiology at Harvard Medical School. The work has been supported by U. S. Public Health Service Grants MH07658, MH02094, HE13346, and HE14150."

Rutgers

John Falk and co-workers have been developing a behavioral procedure for producing physical dependence on ethanol. "Using the schedule-induced polydipsia technique, we have been able to induce animals to self-administer

large quantities of ethanol: 13.1 gms of ethanol per kg of body weight, daily. The animals run high blood ethanol levels and die in convulsions if summarily withdrawn from access to ethanol. There is no question that we have induced a self-imposed physical dependence on ethanol. In what sense this might be taken as a model of human alcoholism depends upon one's views on the addictive process. Both gustatory and caloric factors have been found to be important in the institution and maintenance of the elevated ethanol intake. The maintenance of this intake is also a function of alternate gustatory and caloric possibilities provided in the experimental situation. Like everything else in pharmacology, this is a function of dose-effect relations.

"Since our report (Behavioral Maintenance of High Concentrations of Blood Ethanol and Physical Dependence in the Rat. John L. Falk, Herman H. Samson, and Gail Winger. *Science*, 1972, 177, 811-812) we have consulted with several biomedical laboratories which are interested in setting up this method for the self-imposed dependence on ethanol. In our current research, we have been exploring the motor capabilities of animals subjected to this regime for many months. We are also exploring the effects of short and long term withdrawal on these dependent animals. We feel that research on long term physical dependence on ethanol has been hampered in the past by the lack of a simple and stable method for the reliable administration of continuous daily doses. It is our hope that this relatively simple method will facilitate biomedical research on dependence and addiction."

SOME NIMH RESEARCH GRANTS AWARDED IN 1972

State-dependent learning and memory in marijuana

Herbert Weingartner, Ph.D.
Adjunct Associate Professor of Psych.
Antioch College
5401 Wilkens Avenue
Baltimore, Maryland 21228
1972-3; \$4,500

A study of chronic marijuana inhalation
Maurice F. Sullivan, Ph.D.
Pacific Northwest Laboratories
Battelle-Northwest P. O. Box 999
Richland, Washington 99352
1972-4; \$83,710

Studies with THC in man
Sidney Malitz, M.D.
Chief of Psychiatric Research
New York State Psychiatric Institute
722 West 168th Street
New York, New York 10032
1972-4; \$221,167

Neuro-behavioral mechanisms of drug addiction
Stanley D. Glick, M.D., Ph.D.
Assistant Professor, Dept. of Pharmacology
Mt. Sinai School of Medicine
100th Street and Fifth Avenue
New York City, New York 10029
1972-5; \$105,722

The effects of opiate withdrawal on learning
Clinton L. Trafton, Ph.D.
Associate Professor of Psychology
University of Arizona
Tucson, Arizona 85721
1972-5; \$36,740

Development of sustained-release narcotic antagonists
Henry A. Palmer, Ph.D.
Assistant Professor, Dept. of Pharmacy
School of Pharmacy
University of Connecticut
Storrs, Connecticut 06268
1972-4; \$47,015

Long-acting narcotic antagonist salts for addiction
Allan P. Gray, Ph.D.
Associate Professor of Pharmacology
Given Building
University of Vermont
Burlington, Vermont 05401
1972-5; \$125,167

Behavioral pharmacology of narcotic antagonists

Stephen G. Holtzman, Ph.D.
Assistant Professor of Pharmacology
Emory University
Division of Basic Health Sciences
Atlanta, Georgia 30322
1972-5; \$129,168

Narcotic addict behavior modification project

Benjamin J. Auerbach, Ph.D.
Admin. Project Director
Dept. Corrections P and CSD
239B West Olive Avenue
Burbank, California 91502
1972-4; \$40,192

Contingency contracting for treatment for drug abuse

Henry M. Boudin, Ph.D.
Project Director, Special Education
43K Norman Hall
University of Florida
Gainesville, Florida 32601
1972-4; \$87,600

WANT ADS

Position Available

Ph.D. in Physiological Psychology/CNS Pharmacology/Neuroscience, preferably with postdoctoral experience. Exceptional research opportunity for creative individual who would enjoy collaborative research with chemists and psychologists in the following areas: learning and memory, central nervous system drug evaluation, analysis of drug mechanisms, neurochemistry of behavior. Application with curriculum vitae and the names of three references should be sent to Dr. Larry Stein, Wyeth Laboratories, P. O. Box 8299, Philadelphia, Pennsylvania 19101

Ph.D. in Physiological Psychology. Behavioral pharmacologist with at least 3-5 years of experience doing research in behavioral pharmacology. Should be inclined towards inter-disciplinary work with neurophysiologists and neurochemists. Salary will be commensurated

with background and experience. Labs are in Princeton, New Jersey, in a new research and administration complex. Contact Dr. Bernard Beer, Head, CNS Pharmacology, The Squibb Institute for Medical Research, Princeton, New Jersey 08540

Positions Desired

In basic research in behavioral pharmacology related to drug abuse problems. Presently research psychologist, two years postdoctoral experience in drug abuse related behavioral research, plus animal research in psychophysiological correlates of behavior; two years full-time teaching experience. Contact Dr. Judith M. Smith, Department of Psychiatry, University of Chicago, 950 East 59th Street, Chicago, Illinois 60637

In teaching and research at the assistant professor level. Will consider non-academic setting if research opportunities are good. Behavioral pharmacology, physiological psychology, operant conditioning, experimental psychology. Some experience in behavior modification. One year of undergraduate teaching; seven publications, two in preparation. Salary and geographical preference--open. Ph.D. from University of Chicago in Spring, 1973. Available in July, 1973. Contact Mr. Jack L. Altman, c/o Dr. James Appel, Department of Psychology, University of South Carolina, Columbia, South Carolina 29208

In teaching and/or research. Behavioral pharmacology; learning; statistics and methodology; comparative. Ph.D. expected 1973. Two years associated with animal marijuana research programs; teaching experience includes graduate statistics, instrumentation, undergraduate conditioning and learning. Four publications, five papers. New Mexico; available September, 1973. No geographical preferences. Contact Mr. Michael G. Grisham, Department of Psychology, University of New Mexico, Albuquerque, New Mexico 87106

By two new Ph.D.'s expecting to graduate in September, 1973. Contact Dr. Ronald Baerninger, Department of Psychology, Temple University, Philadelphia, Pennsylvania 19122

RECENT PUBLICATIONS

Aprison, M.H. and J.N. Hingtgen. Serotonin and Behavior: A Brief Summary. Fed. Proc., 31, 121-129, Jan.-Feb., 1972.

Bradley, B.P. (Ed) Macromolecules and Behavior. Baltimore: University Park Press, 1972.

Btsh, S. (Ed) Drug Abuse: Non-medical Use of Dependence-Producing Drugs. Proceedings of the Sixth Round Table Conference Organized by the Council for International Organizations of Medical Sciences with the Participation of the U.N. Educational, Scientific, and Cultural Organization and WHO, Geneva, Switzerland, October 20-21, 1971, New York: Plenum Press, 1972.

Garattini, S. and L.O. Randall. Benzodiazepines. (Monographs of the Mario Negri Institute for Pharmacological Research) Raven: 1972.

Harris, L.S. General and Behavioral Pharmacology. Pharmacol. Rev., 23, 285-294, Dec., 1971.

Kalant, H., A.E. LeBlanc, and R. J. Gibbins. Tolerance to, and Dependence on, Some Non-opiate Psychotropic Drugs. Pharmacol. Rev., 23, 135-191, Sept., 1971.

Longo, V.G. Neuropharmacology and Behavior. W.H. Freeman, 1972.

Malitz, S. (Ed) L-Dopa and Behavior. New York: Raven, 1971.

Mello, N.K. and J.H. Mendelson (Eds). U. S. DHEW Recent Advances in Studies of Alcoholism, an Interdisciplinary Symposium, Sponsored by the National Center for Prevention and Control of Alcoholism. DHEW Publication # (HS4) 71-9045. Rockville, Maryland. NIMH/National Institute on Alcohol Abuse and Alcoholism, 1971.

Marihuana and Health: A Report to the Congress. American J. Psychiatry, 128, 189-193, Aug., 1971

On the Legislative Front

Prior to 1970, drug legislation was typically reactionary, based on punitive solutions to drug abuse problems; there was, however, no overall systematic program initiated in an effort to impose specific controls and regulations on the availability of drugs. With the problem of drug abuse attracting national attention, in 1970 Congress enacted the Comprehensive Drug Abuse Prevention and Control Act (Controlled Substances Act) which delineated the criminal penalties for drug abuse, establishing five basic schedules of drugs subject to control and the criteria for determining which drug would be placed into which category. The Controlled Substances Act appears to have been based on at least in part on scientific findings, and part growing out of a political game of musical chairs. One envisions a platoon of ENDD agents, each wearing a sign corresponding to a given drug, trooping in a vast circle. When the attorney general shouted "stop the music", each marcher took the nearest chair, which were randomly assigned numbers 1 through 5 (corresponding to the five drug schedules). As it turns out, some of the assignments don't exactly appear random. For example, the cannabis compounds are classified under Schedule 1, though there is precious little scientific

evidence they have any of the defining properties of that class. Be that as it may, most of us involved in drug research must live with the strictures of the new schedules. This law was effected in an effort to curtail criminal abuse of drugs and channel drugs into legitimate sources.

Since the original enactment of this law, modifications in the direction of tighter control have included the change of amphetamine from a Schedule III to a Schedule II drug (high abuse potential, probability of dependence and rarely accepted medical use). In a further effort to deal with the wide-spread problem of amphetamine abuse, the Bureau of Narcotics and Dangerous Drugs ordered amphetamine and methamphetamine production decreased by 80% in 1972.

A second major legislative move which was implemented in 1970 was the Drug Education Act. Recognizing drug abuse as a severe problem, this act provided funds for educational drug programs at all levels including general community information centers. The emphasis of this act was as a preventive measure against further drug abuse.

Recent reports to the Department of Health, Education and Welfare examining in retrospect this attempt to foster prevention through education, have indicated a general lack of success. As a result, recommendations have been made to shift this emphasis from prevention to the development of a more accepting attitude toward drug use.

Drug legislation during 1972 included the passing of two acts: (1) the Drug Abuse Office and Treatment Act of 1972 which established a Special Action Office for Drug Abuse Prevention, the purpose being to concentrate on the problem of drug abuse; and (2) the Drug Listing Act of 1972 which requires drug manufacturers to provide current inventories of the drugs they are marketing. This would furnish the Secretary of Health, Education and Welfare with

an effective means of surveillance and potential control over the production of drugs.

The Special Action Office was placed under the directorship of Dr. Jerome Jaffee. This office was established to direct some of the Federal drug abuse programs, and make recommendations regarding treatment programs, priorities and allocation of funds.

Primary emphasis has been placed on methadone maintenance programs and the possibility of establishing heroin maintenance programs is currently under discussion. The success of present programs has been limited and according to Attorney General Richard Kleindienst, 1973 will see the recommendation of new increasingly restrictive and punitive laws if positive action fails. The experimental screening of urine samples of vast numbers of junior and senior high school students for dangerous drugs is a step in that direction.

1972-3 Officers

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Larry Brohman, Assistant Editor
Patricia McGuire, Assistant Editor
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Minutes of the May 18, 1973, meeting of the Executive Committee, Division 28 (Radisson South Hotel, Minneapolis, Minnesota)

Present: L. Cook, V. Laties, B. Migler for B. Beer, D. Overton, R. Pickens
J. Sepirwall, T. Thompson, B. Weiss

Secretary and Treasurer reports were read and approved. A balance of \$3,111.37 was present on May 1, 1973.

Sepirwall reported the Program Committee asked for 16 hours at the 1973 APA meeting and has filled all hours. A copy of the divisional program will be included in the next issue of the Newsletter. The annual business meeting has been schedule for August 29 in the St. Pierre room of the Bonaventure Hotel in Montreal from 12:00-12:50. APA council meeting will be on Monday and Thursday mornings, August 27 and 30. Program chairman for 1974 will be I. Geller and for 1975 will be D. Overton. Past, present, and future chairmen will comprise the Program Committee to determine each year's program.

Migler reported for B. Beer that the Membership Committee has received only one completed recommendation form for new fellows. Mrs. Jane Hildreth at APA central office has granted us a 15-day extension (until June 15) for receipt of recommendation forms. Any forms received after June 15 still can be considered by the APA Membership Committee at their fall meeting before the APA convention, as long as the recommendations are few in number. Beer will select potential fellows from the Division's membership list and send the list to Thompson and Pickens for further review. Pickens will contact members of the Executive Committee for final approval. Beer will arrange recommendation forms for selected members.

Thompson reported the Publications Committee has received favorable comment on the first issue of the Newsletter. Each issue costs about \$160 and there are four issues planned per year. Postcard application forms for membership in the Division will be included in the next issue of the Newsletter. Thompson will contact Ellsworth Cook for copies of last year's statements of the Pharmacology Society for circulation to members of Division 28 via the Newsletter.

Weiss reported members of the Division 28-ASPET Liaison Committee have agreed on the content of a 1974 FASEB symposium on "Current Status of Behavioral Pharmacology". The symposium will be sponsored jointly by ASPET and Division 28. Division 28 members should be encouraged to apply for membership in the Pharmacology Society.

G. Heise was suggested as alternate council representative for N. Mello.

No prizes or research awards will be given this year. The Treasurer will notify the individual holding an uncollected award that the Division will terminate its obligation within a specified period (suggested one month)

unless specific arrangements are made for collection of the award. Next year two travel awards of \$200 each will be available to graduate students for submitting full length research paper (not abstract) to Chairman, Program Committee. Papers must be of single authorship, unless co-authored by another graduate student. Only one award will be given per paper, however.

There will be an annual Carl Scheckel (invited) address at APA each year. In addition, there will be an optional presidential address for the incoming president. The presidential address would then be followed by the Division's business meeting, presided over by the outgoing president.

Funds were approved for a divisional hospitality suite to remain open all day on August 27, 28, and 29 during the APA convention, at approximately \$100 per day. Students may be paid for working in the suite.

Secretary will contact members of the Executive Committee concerning location of next year's spring meeting.

The next meeting of the Executive Committee will be on Tuesday, August 28, from 3-5 p.m., during the APA convention. Program chairman will make room arrangements for the meeting.

Roy Pickens, Secretary